

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) An apparatus comprising:
a memory device having a memory device input data bus including a least significant bit and a plurality of non-least significant bits; and
a first repair router having a first repair router input data bus including a least significant bit and a plurality of non-least significant bits, and a first repair router output data bus coupled to the memory device input data bus, the first repair router having internal routing circuitry to route any of the plurality of non-least significant bits of the first repair router input data bus to the least significant bit of the memory device input data bus and to discard the least significant bit of the first repair router input data bus.
2. (Previously Presented) The apparatus of claim 1 wherein:
the plurality of non-least significant bits of the memory device input data bus includes a next-to-least significant bit; and
the first repair router further includes additional repair routing circuitry to route any of the non-least significant bits of the first repair router input data bus to the next-to-least significant bit of the memory device input data bus.
3. (Original) The apparatus of claim 1 wherein the memory device includes a memory device output data bus including a least significant bit and a plurality of non-least significant bits, the apparatus further comprising:
a second repair router having a second repair router input data bus coupled to the memory device output data bus, and having a second repair router output data bus including a least significant bit and a plurality of non-least significant bits, the second repair router having internal routing circuitry to route the least significant bit of the memory device output data bus to any of the plurality of non-least significant bits of the second repair router output data bus.

4. (Original) The apparatus of claim 3 wherein the memory device includes a plurality of address ranges, and the first and second repair routers include address decoding circuitry to decode each of the plurality of address ranges.
5. (Original) The apparatus of claim 4 wherein the memory device includes two address ranges defined by a state of a most significant address bit.
6. (Original) The apparatus of claim 3 further comprising a display device coupled to the second repair router output data bus.
7. (Previously Presented) The apparatus of claim 6 wherein the display device is a color display device, and the memory device and first and second repair routers influence a first color of the color display device, the apparatus further comprising:
 - a second memory device; and
 - a second pair of repair routers coupled to the second memory device to influence a second color of the color display device.
8. (Previously Presented) The apparatus of claim 7 further comprising:
 - a third memory device; and
 - a third pair of repair routers coupled to the third memory device to influence a third color of the color display device.
9. (Previously Presented) A memory device comprising:
 - a plurality of addressable memory locations, each including a least significant bit and a plurality of non-least significant bits; and
 - a first repair router having a repair router input data bus with a least significant bit and a plurality of non-least significant bits, and having a repair router output data bus coupled to the plurality of addressable memory locations, the first repair router including routing circuitry to route any of the plurality of non-least significant bits of the repair router input data bus to the

least significant bit of at least one of the plurality of addressable memory locations and to discard the least significant bit of the repair router input data bus.

10. (Original) The memory device of claim 9 wherein:

the plurality of addressable memory locations are arranged into a plurality of address ranges; and

the first repair router further includes address decoding circuitry to decode each of the plurality of address ranges.

11. (Original) The memory device of claim 10 further comprising a second repair router coupled to an output data bus of the memory device, the second repair router including routing circuitry to reverse any routing performed by the first repair router.

12. (Original) The memory device of claim 9 wherein the first repair router is configured to route a specific non-least significant bit to the least significant bit of the plurality of addressable memory locations when a problem exists with the specific non-least significant bit in at least one of the plurality of addressable memory locations.

13. (Original) The memory device of claim 9 further comprising a second repair router coupled to an output data bus of the memory device, the second repair router including routing circuitry to reverse any routing performed by the first repair router.

14. (Previously Presented) The memory device of claim 9 wherein:

the plurality of non-least significant bits of each of the addressable memory locations includes a next-to-least significant bit; and

the first repair router further includes routing circuitry to route any of the plurality of non-least significant bits of the repair router input data bus to the next-to-least significant bit of at least one of the plurality of addressable memory locations.

15. (Previously Presented) A display system comprising:
 - a display device having an array of pixels;
 - a memory having a plurality of addresses, each of the plurality of addresses corresponding to one pixel in the array of pixels, and each of the plurality of addresses including a least significant data bit and a plurality of non-least significant data bits; and
 - a first repair router to utilize the least significant data bit of at least one of the plurality of addresses to hold non-least significant information from any of the plurality of non-least significant data bits and to discard least significant information.
16. (Original) The display system of claim 15 wherein the display device is a silicon light modulator.
17. (Original) The display system of claim 15 wherein the memory is configured to hold a first color information, the display system further comprising:
 - a second memory configured to hold second color information; and
 - a second repair router coupled to the second memory.
18. (Original) The display system of claim 17 further comprising:
 - a third memory configured to hold third color information; and
 - a third repair router coupled to the third memory.
19. (Previously Presented) The display system of claim 15 wherein:
 - the plurality of addresses are arranged in a plurality of groups; and
 - the first repair router includes routing circuitry to utilize the least significant bits of each of the plurality of groups separately.
20. (Previously Presented) An integrated circuit comprising:
 - a first memory device having an input data bus and an output data bus;

first and second repair routers coupled to the input data bus and the output data bus, respectively, the first and second repair routers including routing circuitry to route data to and from the first memory device as a function of defects in the first memory device; and

wherein the first and second repair routers include internal routing circuitry to utilize a least significant bit of the first memory device as a non-least significant bit and to discard least significant information.

21. (Previously Presented) The integrated circuit of claim 20 further comprising a reflective electrode coupled to the first memory device, the reflective electrode having a plurality of pixels responsive to data from the first memory device as received by the second repair router.

22. (Previously Presented) The integrated circuit of claim 21 wherein:
the first memory device includes a plurality of groups of data locations; and
the first and second repair routers each include circuitry to separately route data for each of the plurality of groups of data locations.

23. (Original) The integrated circuit of claim 22 further comprising:
second and third memory devices; and
second and third pairs of repair routers coupled to the second and third memory devices respectively.

24. (Previously Presented) The apparatus of claim 2 wherein:
the first repair router further includes additional repair routing circuitry to discard a next-to-least significant bit of the first repair router input data bus.

25. (Previously Presented) The memory device of claim 14 wherein:
the first repair router further includes routing circuitry to discard a next-to-least significant bit of the repair router input data bus.

26. (New) A color display system comprising:
- a green display device;
 - a first repairable memory coupled to the green display device to drive the green display device;
 - a blue display device;
 - a second repairable memory coupled to the blue display device to drive the blue display device;
 - a red display device;
 - a third repairable memory coupled to the red display device to drive the red display device; and
- wherein the first repairable memory, the second repairable memory, and the third repairable memory each comprise:
- a plurality of addressable memory locations, each including a least significant bit and a plurality of non-least significant bits;
 - a first repair router having a repair router input data bus with a least significant bit and a plurality of non-least significant bits, and having a repair router output data bus coupled to the addressable memory locations, the first repair router including routing circuitry to route any of the plurality of non-least significant bits of the repair router input data bus to the least significant bit of at least one of the addressable memory locations and to discard the least significant bit of the repair router input data bus; and
 - a second repair router coupled to an output data bus of the addressable memory locations, the second repair router including routing circuitry to reverse any routing performed by the first repair router.
27. (New) The color display system of claim 26 wherein:
- the addressable memory locations are arranged into a plurality of address ranges; and
 - the first repair router further includes address decoding circuitry to decode each of the plurality of address ranges.

28. (New) The color display system of claim 26 wherein the green display device, the red display device, the blue display device, the first repairable memory, the second repairable memory, and the third repairable memory are located in a single integrated circuit.

29. (New) The color display system of claim 26 wherein the first repair router is configured to route a specific non-least significant bit to the least significant bit of the addressable memory locations when a problem exists with the specific non-least significant bit in at least one of the addressable memory locations.

30. (New) The color display system of claim 26 further comprising:

a first D/A converter coupled between the first repairable memory and the green display device to drive the green display device with an analog signal generated from digital data in the first repairable memory;

a second D/A converter coupled between the second repairable memory and the blue display device to drive the blue display device with an analog signal generated from digital data in the second repairable memory; and

a third D/A converter coupled between the third repairable memory and the red display device to drive the red display device with an analog signal generated from digital data in the third repairable memory.

31. (New) The color display system of claim 26 wherein:

the plurality of non-least significant bits of each of the addressable memory locations includes a next-to-least significant bit; and

the first repair router further includes routing circuitry to route any of the plurality of non-least significant bits of the repair router input data bus to the next-to-least significant bit of at least one of the plurality of addressable memory locations.

32. (New) A method comprising:

receiving digital data including a least significant bit and a plurality of non-least significant bits;

routing any of the non-least significant bits to a least significant bit of a memory device;
and

discarding the least significant bit.

33. (New) The method of claim 32 wherein:
receiving digital data further comprises receiving a next-to-least significant bit; and
routing further comprises routing any of the non-least significant bits to a next-to-least significant bit of the memory device.

34. (New) The method of claim 32, further comprising routing a least significant bit of the memory device to any of a plurality of non-least significant bits of an output data bus of a repair router.

35. (New) The method of claim 32, further comprising decoding each of a plurality of address ranges in the memory device.

36. (New) The method of claim 32, further comprising driving a display device with digital data from the memory device.

37. (New) The method of claim 32, further comprising driving a color display device with digital data from the memory device to influence a color of the color display device.

38. (New) A method comprising:
driving a display device having an array of pixels with signals generated from information;
storing the information in a first memory having a plurality of addresses, each of the plurality of addresses corresponding to one pixel in the array of pixels, and each of the plurality of addresses including a least significant location and a plurality of non-least significant locations;

storing a non-least significant data bit of the information in the least significant location of at least one of the plurality of addresses; and

discarding a least significant data bit of the information.

39. (New) The method of claim 38, further comprising routing a data bit from the least significant location of one of the plurality of addresses to any of a plurality of non-least significant locations of an output data bus of a repair router.

40. (New) The method of claim 38 wherein driving a display device further comprises driving a silicon light modulator.

41. (New) The method of claim 38 wherein:
storing the information further comprises storing first color information in the first memory; and

further comprising:

storing second color information in a second memory; and

storing third color information in a third memory.

42. (New) The method of claim 38 wherein:
storing the information further comprises storing the information in the first memory in the addresses arranged in a plurality of groups of addresses; and
storing a non-least significant data bit further comprises storing non-least significant data bits of the information in least significant locations in each of the groups separately.

43. (New) The method of claim 38, further comprising storing a non-least significant data bit of the information in a next-to-least significant location of at least one of the plurality of addresses.